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TOTAL PHENOLICS, FLAVONOIDS AND ANTIOXIDANT ACTIVITY OF *DHATHRI RASAYANA*

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Dhathri Rasayana (DR) is a polyherbal formula mentioned in authentic traditional medicine text. It consists of 7 plant ingredients and some other herbal materials. DR is widely used in Sri Lankan traditional medical systems and it is considered as an effective drug that has lesser side effects compared to modern drugs for many diseases. Free radical formation led to various kinds of complications in the human body. The present study was undertaken to determine the Total Phenolic Content (TPC), Total Flavonoid Content (TFC), and the antioxidant activity. The TPC and TFC were determined using Folin Ciocalteu and aluminium chloride methods respectively. The DPPH free radical scavenging activity and Iron reducing power assay were used to determine the antioxidant activity. The TPC and TFC were 0.0558 ± 0.0127 mg GAE/g and 0.0877 ± 0.0038 mg QE/g. The radical scavenging activity was lesser compared to L-ascorbic acid in both assays, but indicates 32.27-66.01% anti-oxidant potential from the DPPH free radical scavenging assay while from the Iron reducing power assay it shows 0.061 – 0.169 absorbance values. This may be one of the mechanisms of amelioration of diseases. Therefore, it can be concluded that the aqueous extract of the DR shows a significant amount of antioxidant activity. Also, our results are justifying the use of DR in the treatment of various inflammatory and metabolic disorders in the Traditional Sri Lankan System of Medicine. Further omic-based research studies should be conducted for finding the advance mechanisms of this medicine.

Keywords: Antioxidant activity, *Dhatri Rasayan*, Flavonoid content, Phenolic content